

### **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

### **Listing of Claims:**

1. (Currently amended) A corneal implant for improving or correcting vision comprising a membrane[[,]] saturated with a hydrating solution, said membrane ~~formed from a solution of~~ consisting essentially of a dried solution of a mixture of a biological polymer and mixed with a polyacrylamide homopolymer[[,]] wherein said solution ~~has been dried to form a membrane and the membrane has been hydrated for use as a corneal implant.~~
2. (Currently amended) The implant of claim 1, wherein the polyacrylamide homopolymer is a poly (N-alkylacrylamide).
3. (Currently amended) The implant of claim 1, wherein the polyacrylamide homopolymer is poly (N-isopropylacrylamide).
4. (Currently amended) The implant of claim 1, wherein the biological polymer is selected from the group consisting of collagen, fibrin-fibrinogen, gelatin, elastin and mixtures any combination thereof.
5. (Original) The implant of claim 4, wherein the collagen is selected from the group consisting of telocollagen and atelocollagen.
6. (Withdrawn) The implant of claim 4, wherein the collagen is a type I collagen.
7. (Withdrawn) The implant of claim 4, wherein the collagen is selected from the group consisting of recombinant collagen and collagen from a natural source.
8. (Currently amended) The implant of claim 1, wherein the biological polymer and the polyacrylamide homopolymer are ~~present~~ in a ratio of about 0.2:1.0 (w/w) to about 1.0:0.2 (w/w) biological polymer:polyacrylamide homopolymer.

9. (Currently amended) The implant of claim 8, wherein the biological polymer and the polyacrylamide homopolymer are ~~present~~ in a ratio of about 0.3:1.0 (w/w) biological polymer:polyacrylamide homopolymer.
10. (Currently amended) ~~The implant of claim 1, wherein said membrane further comprises~~ A corneal implant for improving or correcting vision comprising a membrane saturated with a hydrating solution, said membrane consisting essentially of a dried solution of a mixture of biological polymer, a polyacrylamide homopolymer, and a chemical crosslinking agent ~~a chemical crosslink~~.
11. (Currently amended) The implant of claim 10, wherein the ~~crosslink is obtained by crosslinking with a~~ chemical crosslinking agent is selected from the group consisting of (a) a carbodiimide crosslinking agent; (b) a N-hydroxysuccinimide; and (c) both (a) and (b).
12. (Original) The implant of claim 11, wherein the carbodiimide crosslinking agent is 1-(3-dimethylaminopropyl)-3-ethyl carbodiimide.
13. (Original) The implant of claim 1, wherein the membrane has a thickness of about 20  $\mu\text{m}$  to about 400  $\mu\text{m}$ .
14. (Original) The implant of claim 13, wherein the membrane has a thickness of about 50  $\mu\text{m}$  to about 100  $\mu\text{m}$ .
15. (Currently amended) A corneal implant for improving or correcting vision comprising ~~The implant of claim 1, wherein said implant comprises~~ a plurality of membranes, wherein at least one of said plurality of membranes is the membrane saturated with the hydrating solution as defined in claim 1 ~~comprises a biological polymer and a polyacrylamide~~.
16. (Canceled).
17. (Canceled).

18. (Canceled).

19. (Canceled).

20. (Canceled).

21. (Canceled).

22. (Canceled).

23. (Canceled).

24. (Canceled).

25. (Previously presented) A method of treating a condition characterized by a corneal defect, said method comprising applying the implant of claim 1 to a subject.

26. (Previously presented) The method of claim 25, wherein said subject is a human.

27. (Withdrawn) A commercial package comprising the implant of claim 1, together with instructions for treating a condition characterized by a corneal defect.

28. (Withdrawn) A commercial package comprising:

- a corneal implant comprising a dried membrane, said dried membrane comprising a mixture of a biological polymer and a polyacrylamide; and
- a rehydration solution for use prior to implantation of the dried membrane.

29. (Canceled).

30. (Currently amended) The implant of claim 1, wherein the ~~membrane is hydrated with~~ a hydrating solution comprising ~~comprises~~ a drug, a bioactive compound, a chemical crosslinking agent or a combination thereof.

31. (Currently amended) The implant of claim 30, wherein the bioactive compound is selected from the group consisting of proteins, glycoproteins, adhesive peptides, glycosaminoglycans, lipids, cytokines, chemokines and ~~mixtures~~ any combination thereof.
32. (Currently amended) ~~The implant of claim 1, wherein the mixture of the biological polymer and the polyacrylamide further comprises~~ A corneal implant for improving or correcting vision comprising a membrane saturated with a hydrating solution, said membrane consisting essentially of a dried solution of a mixture of a biological polymer, a polyacrylamide homopolymer, and a drug, a bioactive compound, or a combination of (i) a drug and a bioactive compound, (ii) a drug and a chemical crosslinking agent, (iii) a bioactive compound and a chemical cross-linking agent, or (iv) a drug, a bioactive compound and a chemical crosslinking agent thereof.
33. (Currently amended) The implant of claim 32, wherein the bioactive compound is selected from the group consisting of proteins, glycoproteins, adhesive peptides, glycosaminoglycans, lipids, cytokines, chemokines and ~~mixtures~~ any combination thereof.
34. (Canceled).
35. (Currently amended) The implant of claim 1, wherein the ~~membrane-forming solution comprises~~ mixture is formed from a 0.30-0.35% solution of a the biological polymer and mixed with a 2-10% solution of a the polyacrylamide homopolymer.